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<th>Title</th>
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<tr>
<td>1</td>
<td>1</td>
<td>Call Admission Control Techniques for 3GPP LTE: A Survey</td>
<td>Luka, MK; Atayero, AA; Oshin, OI</td>
<td>Proceedings of the 2016 SAI Computing Conference (SAI)</td>
<td>WOS:0003839451900100</td>
<td>978-988-19253-6-7</td>
<td>Attempts at securing wireless sensor networks in WSN and making them more resilient and self-healing after attacks demand that services rendered by the network be secured on individual basis. The fact that a node is malfunctioning and/or has been compromised does not necessarily warrant its elimination from the network. Albeit, services such as routing, sensor readings, key distribution schemes, and others are handled in isolation and individually, due to the fact that an attack or malfunction may only be temporary. Moreover, an attack aimed at routing, or a particular application service does not invalidate nodes or the entire network. Consequently, Fuzzy Inference Gatekeeper Algorithm (FIGA); the algorithm presented in this paper proposes a piecemeal approach to WSN security. FIGA secures interactions in autonomous WSN by using a contextualized fuzzy inference system to combine trust scores from individual node interactions, reputation scores gotten from consultations and time dependent exponential trust scores. By so doing, we argue that autonomous WSNs can be better secured. We further illustrate the effectiveness of the FIGA against a simulated Sybil attack and discuss how the network recovers following such an attack.</td>
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<td>2</td>
<td>2</td>
<td>Development of FIGA: a Novel Trust-Based Algorithm for Securing Autonomous Interactions in WSN</td>
<td>Atayero, AA; Alatishe, AS</td>
<td>World Congress on Engineering and Computer Science</td>
<td>WOS:000385951600008</td>
<td>978-988-19253-6-7</td>
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<td>3</td>
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<td>From 3GPP LTE to 5G: An Evolution</td>
<td>Oshin, O (Oshin, Oluwadamilola); Luka, M (Luka, Matthew); Atayero, A (Atayero, Aderemi)</td>
<td>TRANSACTIONS ON ENGINEERING TECHNOLOGIES</td>
<td>WOS:000380591600034</td>
<td>978-988-19253-6-7</td>
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<td>A brief overview of its architecture, this paper explores some key features of LTE that places it at the forefront in achieving the goals of wireless access evolution, enabling it to become a key element of the ongoing mobile internet growth. The migration to 5G may be radical, thus some enabling technologies that will shape the 5G cellular networks are also examined.</td>
<td>Ao SI; Yang GC; Gelman L</td>
<td>World Congress on Engineering and Computer Science, WCECS 2015, Vol I Book Series: Lecture Notes in Engineering and Computer Science</td>
<td>WOS:000380591600036</td>
<td>978-988-19253-6-7</td>
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<td>5</td>
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<td>Design and Construction of a Microcontroller-Based Automatic Irrigation System</td>
<td>Atayero, AA (Atayero, Aderemi A.); Alatishe, AS (Alatishe, Adeyemi S.)</td>
<td>World Congress on Engineering and Computer Science</td>
<td>WOS:000380591600008</td>
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<td>From 3GPP LTE to 5G: An Evolution</td>
<td>Oshin, O (Oshin, Oluwadamilola); Luka, M (Luka, Matthew); Atayero, A (Atayero, Aderemi)</td>
<td>TRANSACTIONS ON ENGINEERING TECHNOLOGIES</td>
<td>WOS:000380591600034</td>
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<td>Design and Construction of a Microcontroller-Based Automatic Irrigation System</td>
<td>Atayero, AA (Atayero, Aderemi A.); Alatishe, AS (Alatishe, Adeyemi S.)</td>
<td>World Congress on Engineering and Computer Science</td>
<td>WOS:000380591600008</td>
<td>978-988-19253-6-7</td>
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Record 5 of 29
Title: Development of SeatSense: A Wireless Sensor Network Based Seat Detection System
Author(s): Atayero, AA (Atayero, Aderemi A.); Illori, OA (Ilori, Olusegun A.); ADEDOKUN, MO (Adeodokun, Michael O.)
Edited by: Ao SI; Douglas C; Grundfest WS; Burston J
Source: WORLD CONGRESS ON ENGINEERING AND COMPUTER SCIENCE, WCECS 2015, VOL II Book Series: Lecture Notes in Engineering and Computer Science Pages: 711-714 Published: 2015
Abstract: A task of locating particular seats in a partially (or otherwise) occupied auditorium can be difficult. The need for this may arise in a variety of situations in the emerging IoT-centric world. We present in this paper the development of a system we have tagged SeatSense. It is a means of detecting the availability or occupancy status of seats in any hall (of any conceivable capacity). SeatSense can find applicability in various indoor situations such as: concert halls, stadiums, churches, cinema halls and even outdoors e.g. in buses where seats are not pre-assigned. A sensor node located in each seat detects if it is occupied and feeds back information to a data sink where it is interpreted and visualized. This paper addresses the technical issues of designing and implementing seat occupancy detection technology in large auditorium with fixed or mobile seats using wireless sensor networks.
Accession Number: WOS:000380591800037
Conference Title: World Congress on Engineering and Computer Science
Conference Date: OCT 21-23, 2015
Conference Location: San Francisco, CA
Conference Sponsors: Int Assoc Engr
ISSN: 2078-0958

Record 6 of 29
Title: Integrating Internet of Things and EHealth Solutions for Students’ Healthcare
Author(s): Takpor, TO (Takpor, Temitope O.); Atayero, AA (Atayero, Aderemi A.)
Edited by: Ao SI; Gelman L; Hukins DWL; Hunter A; Korsunsky AM
Source: WORLD CONGRESS ON ENGINEERING, WCE 2015, VOL I Book Series: Lecture Notes in Engineering and Computer Science Pages: 265-268 Published: 2015
Abstract: Apple Incorporated’s recent announcement of its entry device The Apple Watch (TM) to the wearable’s market can arguably be said to put a final seal of authenticity on wearables. The inevitable ubiquity of wearable devices for eHealth monitoring is a fact soon to be reckoned with. Access to the physiological information provided by the wearables through the ‘6A Connectivity Concept’ of IoT will find positive applications in various fields, most especially in the eHealth and mobile-Health domain. The state of health of a student is key in determining the student’s overall academic performance. Health-related issues usually affect the motivation and ability of students to learn. Therefore it is necessary to provide better health services for students in their various schools and institutions. This paper is a study of the integration of Internet of Things (IoT) and eHealth solutions to effectively manage and monitor university students’ health. One of IoT’s main technologies in healthcare is Radio Frequency Identification (RFID) technology. In this study, we show how RFID technology is used to implement an eHealth solution known as Electronic Medical Records (EMR) for managing students’ health information (which includes students’ medical history, prescriptions, laboratory results, Electrocardiography (ECG) results, blood pressure results, and vital signs). This paper also studies wearable devices for monitoring students that are at risk for high blood pressure, which can be due to intense stress, overweight conditions, and family history of high blood pressure.
Accession Number: WOS:000380592400052
Conference Title: World Congress on Engineering (WCE 2015)
Conference Date: JUL 01-03, 2015
Conference Location: Imperial Coll, London, ENGLAND
Conference Sponsors: Int Assoc Engr
Conference Host: Imperial Coll
ISSN: 2078-0958
ISBN: 978-988-19253-4-3

Record 7 of 29
Title: 3GPP LTE: An Overview
Author(s): Oshin, OI (Oshin, Oluwadamilola I.); Atayero, AA (Atayero, Aderemi A.)
Edited by: Ao SI; Gelman L; Hukins DWL; Hunter A; Korsunsky AM
Source: WORLD CONGRESS ON ENGINEERING, WCE 2015, VOL I Book Series: Lecture Notes in Engineering and Computer Science Pages: 616-621 Published: 2015
Abstract: All-IP network architecture is fast becoming a norm in mobile telecommunications. The International Telecommunications Union Radio communication sector (ITU-R) recognizes a technology as 4G after haven met the International Mobile Telecommunications Advanced (IMT-A) specification of a minimum of 100Mb/s downlink data rate for high mobility and 1Gb/s for low mobility. Advent of Long Term Evolution by 3GPP, providing a minimum downlink data rate of 100Mb/s, marked a new beginning in Radio Access Technologies (RATs). It also notably implements an all-IP network architecture, providing higher data rates, end-to-end Quality of Service (QoS) and reduced latency. This paper aims at providing a technical overview of 3GPP LTE. Starting from a brief overview of its network architecture, this paper aims at exploring some key features of LTE that places it at the forefront in achieving the goals of wireless access evolution, enabling it to become a key element of the ongoing mobile internet growth. This paper also highlights two key aspects of LTE that are currently research intensive, and is wrapped up with the technological advancements on LTE.
Accession Number: WOS:000380592400120
Conference Title: World Congress on Engineering (WCE 2015)
Conference Date: JUL 01-03, 2015
Conference Location: Imperial Coll, London, ENGLAND
Conference Sponsors: Int Assoc Engr
Conference Host: Imperial Coll
ISSN: 2078-0958
ISBN: 978-988-19253-4-3

Record 8 of 29
Title: CLOUD SECURITY AND THE INTERNET OF THINGS: IMPACT ON THE VIRTUAL LEARNING ENVIRONMENT
Author(s): Atayero, AA (Atayero, Aderemi A.); Illori, OA (Ilori, Olusegun A.); ADEDOKUN, MO (Adeodokun, Michael O.)
Edited by: GomezChova L; LopezMartinez A; CandelTorres I
Abstract: All Virtual Learning Environments (VLE) rely heavily on the cloud and its associated technologies. The emerging Internet of Things paradigm will inevitably affect all spheres of human endeavor, the learning environment inclusive. A major concern of both proponents and detractors of the IoT is that of cloud security. This is so since the integrity of any virtual pedagogical process is a function of the security profile of the cloud service provider. It is a commonly accepted fact that the success of any learning process is measured during the assessment stage, during which the integrity of examination materials remains sacrosanct. It follows therefore logically that anything vertical bar person vertical bar process that can breach the cloud security has successfully rendered the whole pedagogical experience futile. This is so since the singular most important objective measure of success in the learning process would have been compromised. It is revealed in literature that around 90% of the over 50 petabytes of information currently available on the Internet are as inputted either directly by humans or through pseudo automatic modes using Human Computer Interfaces. This is however about to change drastically in a world characterized by the internetworking of things (Internet of Things). A very obvious consequence of this ubiquity of
interconnectivity is the inevitable deluge of data that will become available for private, public, shared, and/or monetized consumption. We are concerned in this study with the part of this data related to all areas of VLE. In this paper, we present a survey of generic cloud security issues vis-a-vis the VLE identified currently in the literature, and suggest methods of mitigating them. We go further by extrapolating the prevalent scenarios and suggesting ways of mitigating the challenges of the escalated scenarios.

**Title:** DEVELOPMENT OF VIRCEL: A VIRTUAL COMMUNICATION ENGINEERING LABORATORY

**Author(s):** Atayero, AA (Atayero, Aderemi A.); Oluwatobi, SO (Oluwatobi, Stephen O.); Alejo, PO (Alejo, Philip O.)

**Source:** EDULEARN15: 7TH INTERNATIONAL CONFERENCE ON EDUCATION AND NEW LEARNING TECHNOLOGIES

**Book Series:** Lecture Notes in Computer Science

**Volume:** 978-0-9860419-5-2

**Pages:** 3864-3872

**Published:** 2015

**Abstract:** Access to quality hands-on experience is an essential part of engineering instruction. The laboratory experience is a very vital part of engineering education. Availability of this required access is however not always given. Through laboratory hands-on experiments, students are able to develop practical skills such as real-world problem solving, design, communication, teamwork, independent thinking and creativity, while working in the laboratories. These laboratories with physical presence of students at the experimental rigs are referred to as the hands-on or traditional laboratories in most of the literature. But with the advances in ICT during the last three decades, the virtual environments have opened up some very innovative techniques in teaching. Such environments have been explored to meet the objectives of laboratory work. This has given rise to the development of laboratories referred to as virtual laboratories. This class of laboratories is essential and come with various advantages, the least of which is not the ability of learners to study at their own convenience in time and space. This paper presents a detailed step-wise methodology for the development of one of such virtual laboratories for communication engineering on the LabVIEW (TM) platform.

**Conference Date:** JUL 06-08, 2015

**Conference Location:** Barcelona, SPAIN

**ISBN:** 978-84-606-8243-1

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**Title:** An Assessment of the Internet of Things (IoT) Adoption Readiness Of Sub-Saharan Africa

**Author(s):** Ayodeji, JA; Ayodeji, VJ; Adeokun, MO (Adeokun, Michael O.)

**Source:** INNOVATION MANAGEMENT AND SUSTAINABLE ECONOMIC COMPETITIVE ADVANTAGE: FROM REGIONAL DEVELOPMENT TO GLOBAL GROWTH, VOLS I - VI, 2015

**Pages:** 4238-4250

**Published:** 2015

**Abstract:** A new and fast emerging shift in networking and communications is the Internet of Things. This new connectivity paradigm (according to industry and academic analysts) is expected to fully mature by the year 2020. A number of industry giants have already created platforms both for production and deployment of devices, processes and services aimed at maximizing the opportunities accruable from this new development. The developing economies of Sub-Saharan Africa (SSA) have a unique opportunity to join in the Internet of Things race at the developmental stage. Their ability to maximize the benefits of this early participation in a novel technological trend will, however, be determined by their level of preparedness both technologically and policy wise. A measure of the readiness of Sub-Saharan African states for the adoption of the IoTs becomes of imperative importance. We present in this study, a preliminary assessment of the preparedness of SSA economies for the adoption of the IoTs as a background for a more detailed work on a proposed index (@IoT Index) for measuring in quantitative terms the preparedness level of States for IoT adoption.

**Conference Date:** NOV 11-12, 2015

**Conference Location:** Madrid, SPAIN

**ISBN:** 978-0-9860419-5-2

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**Title:** Human Capital, Institutions and Innovation: An Anecdote of Two Countries

**Author(s):** Oluwatobi, SO (Oluwatobi, Stephen O.); Oluinrind, IO (Oluinrind, Isaiah O.); Atayero, AA (Atayero, Aaron A.)

**Source:** COMPUTATIONAL SCIENCE AND ITS APPLICATIONS - ICCSA 2014, PT V, Book Series: Lecture Notes in Computer Science

**Volume:** 8583

**Pages:** 242-254

**Published:** 2014

**Abstract:** Statistics from World Development Indicators (WDI) show that the GDPs of South Korea and Nigeria were US$4.7 billion and US$5.2 billion respectively as at 1967. However, by 2009, South Korea had advanced leaving Nigeria behind by US$665 billion. With respect to innovation, measured by the amount of scientific publications, Nigeria was ahead of South Korea by 79 percent in 1985. By 2009, South Korea was already ahead of Nigeria by over 4,000 percent. With the aid of descriptive analyses, this study examined the factors responsible for these gaps by comparing both countries using data from the WDI and Worldwide Governance Indicators (WGI). The results affirm that human capital, institutions and innovation are factors responsible for the differences between both countries. This study concluded by drawing our relevant recommendations for development of Nigeria.

**Conference Date:** NOV 11-12, 2015

**Conference Location:** Madrid, SPAIN

**ISBN:** 978-0-9860419-5-2

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**Title:** Self Organizing Networks for 3GPP LTE

**Author(s):** Murgante B; Misra S; Rocha AMAC; Torre C; Rocha JG; Falcao MI; Taniar D; Apduhan BO; Gervasi O

**Source:** GROWTH, VOLS I - VI, 2015

**Pages:** 4251-4264

**Published:** 2015

**Abstract:** Interconnectivity is the inevitable deluge of data that will become available for private, public, shared, and/or monetized consumption. We are concerned in this study with the part of this data related to all areas of VLE. In this paper, we present a survey of generic cloud security issues vis-a-vis the VLE identified currently in the literature, and suggest methods of mitigating them. We go further by extrapolating the prevalent scenarios and suggesting ways of mitigating the challenges of the escalated scenarios.

**Conference Date:** JUL 06-08, 2015

**Conference Location:** Barcelona, SPAIN

**ISBN:** 978-84-606-8243-1
Conference Title: 14th International Conference on Computational Science and Its Applications (ICCSA)
Conference Date: JUN 30-JUL 03, 2014
Conference Location: Guimaraes, PORTUGAL
Conference Sponsors: Univ Minho, Univ Perugia, Univ Basilicata, Monash Univ, Kyushu Sango Univ, Assoc Portuguesa Investigaciao Operac
ISSN: 0302-9743
ISBN: 978-3-319-09156-3; 978-3-319-09155-6

Record 13 of 29
Title: Implementation of Data Normality Testing as a Microsoft Excel (R) Library Function by Kolmogorov-Smirnov Goodness-of-fit Statistics
Author(s): Okenyi, JO (Okenyi, Joshua Olusegun); Okenyi, ET (Okenyi, Elizabeth Toyin); Atayero, AAA (Atayero, Aaron Adekemi A.)
Source: VISION 2020: SUSTAINABLE GROWTH, ECONOMIC DEVELOPMENT, AND GLOBAL COMPETITIVENESS, VOLS 1-5
Published: 2014
Abstract: This paper deliberates on the implementation of data Normality test as a library function in Microsoft Excel (R) spreadsheet software, in which researchers normally stores data for analysis and processing, by Kolmogorov-Smirnov goodness-of-fit statistics. The implementation procedure followed algorithmic program development of the Normality Kolmogorov-Smirnov D statistics for the one-sided and the two-sided test criteria as a library function in the Microsoft Excel environment. For this, the Visual Basic for Applications was employed for deploying macro embedded in the spreadsheet software. Successful implementation of the Normality K-S D statistics fosters the development of the Normality K-S p-value estimation procedure also as a library function in the Ms Excel (R) environment. Tests of these implementations bear potency of accurate, speedy and economical procedure for undertaking Normality testing in research, for data of up to sample size n <= 2000.
Accession Number: WOS:000339308101040

Conference Date: MAY 13-14, 2014
Conference Location: Valencia, SPAIN
ISBN: 978-0-9860419-2-1

Record 14 of 29
Title: Open Education and Digital Scholarly Communication in Covenant University
Author(s): Omonhinmin, CA (Omonhinmin, Conrad A.); Olopade, D (Olopade, Demola); Afolabi, A (Afolabi, Aboade); Atayero, AA (Atayero, Adekemi A.)
Source: 2014 INTERNATIONAL CONFERENCE ON WEB AND OPEN ACCESS TO LEARNING (ICWOLA) Published: 2014
Abstract: African educational systems in general and Nigerian in particular rely extensively on the traditional face-to-face pedagogical approach to information dissemination with its attendant drawbacks. These include (but are not limited to) limited reach; need for physical contact; and a high cost of acquisition of materials. The advent of the internet and telecommunication has offered a better and faster means of reaching target audience. Open Access and Open Education Resources (OER) platforms offer an even greater amount of access, devoid of the restrictions of the traditional pedagogical approach and the high cost of acquisition of knowledge available through the internet. However, the engagement and sustenance of OA systems require heavy initial non-recurring engineering (NRE) and capital expenditure (CAPEX) in the related ICTs and network systems. In the past three years, since adopting an Open Access system, Covenant University (CU) has made several changes to its policies on research results dissemination and pedagogy, as well as the acquisition of relevant ICT facilities and procurement of requisite bandwidth to support these changes. Covenant University has invested massively in the upgrade of its OA development infrastructure amongst several other such as; network systems and upgrade of the University network backbone, to sustain a high-grade internet access. In addition, CU efforts are geared towards the entrenchment of an OA culture in the management of interactions on knowledge sharing and use. Since its introduction in November 2011, OA has been on a steady rise in awareness and application in various strata of the university's interactions both internally and in relation to the external context. CU through its OA office (OACU) engaged in awareness exercises to sensitize its researchers, faculty and other workers alike on OA issues as well as develop and adopt OA. At present, the university has a functional repository system (http://eprints.covenantuniversity.edu.ng) to which it requires faculty and staff to self-archive scholarly publications. The University runs a Green Open Access Journal (OAJ) platform comprising of seven journals (http://journals.covenantuniversity.edu.ng) covering the sciences to human development. Similarly, CU has adopted a publication and incentive system for its researchers and faculty that the publication of research works from the university in OA journals and conferences. The University only recently launched a lifelong teaching program and is about concluding the development of an Open and Distance Learning (ODL) policy to drive distance learning.
Accession Number: WOS:000381566500012

Conference Title: International Conference on Web and Open Access to Learning (ICWOLA)
Conference Date: NOV 25-27, 2014
Conference Location: Dubai, U ARAB EMIRATES

Record 15 of 29
Title: Implementing Open Access in a Private Nigerian University: A case study of Covenant University
Author(s): Omonhinmin, CA (Omonhinmin, Conrad A.); Agbaike, E (Agbaike, Edwin); Atayero, AA (Atayero, Adekemi A.)
Book Group Author(s): IEEE
Source: 2014 INTERNATIONAL CONFERENCE ON WEB AND OPEN ACCESS TO LEARNING (ICWOLA) Published: 2014
Abstract: Most Nigerian universities have not evolved an Open Access culture (or policy) for access to and publication of research, technical and pedagogy information. The National University Commissions (NUC) - the regulatory body for university education in Nigeria is proposing such. Nevertheless, in its drive to attain world-class status, Covenant University (CU) has developed and adopted an Open Access Policy (OAP) on the use and sharing of research findings, as well as dissemination of technical and pedagogic information. AU CU efforts are geared towards the entrenchment of an OA culture in the management of interactions on knowledge sharing and use. Since its introduction in November 2011, OA has been on a steady rise in awareness and application in various strata of the university's interactions both internally and in relation to the external context. CU through its OA office (OACU) engaged in awareness exercises to sensitize its researchers, faculty and other workers alike on OA issues as well as develop and adopt OA. At present, the university has a functional repository system (http://eprints.covenantuniversity.edu.ng) to which it requires faculty and staff to self-archive scholarly publications. The University runs a Green Open Access Journal (OAJ) platform comprising of seven journals (http://journals.covenantuniversity.edu.ng) covering the sciences to human development. Similarly, CU has adopted a publication and incentive system for its researchers and faculty that the publication of research works from the university in OA journals and conferences. The University only recently launched a lifelong teaching program and is about concluding the development of an Open and Distance Learning (ODL) policy to drive distance learning.
Accession Number: WOS:000381566500010

Conference Title: International Conference on Web and Open Access to Learning (ICWOLA)
Conference Date: NOV 25-27, 2014
Conference Location: Dubai, U ARAB EMIRATES

Record 16 of 29
Title: Policy for Development and Use of Open Educational Resources in Covenant University An Open Access Policy in Covenant University
Author(s): Omonhinmin, CA (Omonhinmin, Conrad A.); Omotosho, OE (Omotosho, Omolola E.); Akomolafe, A (Akomolafe, Adebayo); Atayero, AA (Atayero, Adekemi A.)
Book Group Author(s): IEEE
Source: 2014 INTERNATIONAL CONFERENCE ON WEB AND OPEN ACCESS TO LEARNING (ICWOLA) Published: 2014
Abstract: Establishing an Open Access Policy (OAP) in an academic institution is unlike establishing other policies the institution might have developed. An OAP in an academic institution would require the active participation of all stakeholders; researcher/faculty, library, management (Administration) and even students. OAP development in Covenant University spanned a total of 13 months; covering, draft policy development, legal review of policy, review of OAP by the university community, revision of policy document following institutional review, adoption of OAP by university community; ratification of OAP by University Senate. The OAP development period also saw a deliberate effort by the university through its Open Access (OA) office to sensitize its community on the drive for OA, as well as educates strategic units and departments of the university on OA issues to bring such units and department abreast on OA and ensure proper execution on the OAP. Covenant University now operates an OAP for the development and use of open educational resources, alongside Institutional Repository (IR) guidelines. The OAP covers publications and access to research information, pedagogy materials and tools as well as access to non-research or pedagogical materials in the university and by the university workers, researchers and faculty.
Accession Number: WOS:000381566500011
Management needs to make more concerted efforts in bringing members of faculty up to date with innovations in ICT and MEAS. Students to online studies and assignments on the Moodle platform by faculty will help reduce the phobia experienced among students during learning, tests or assignments. Noted as a result of the new technologies introduced, when compared with the old methods of teaching, learning and evaluating students at Covenant University (CU). Information or piece of knowledge at a given time. These distractions were noted to influence the degree of passes or failures which were recorded at the end of the semester. Single subject matter at one point in time, since these learning platforms and ICT gadgets continuously increase the temptations of wanting to process more than one.

Results obtained indicated that a whole lot of faculty and students still have phobias for teaching or writing any kind of test or examination online. There is however little or after which test and examinations where conducted. Results obtained indicated that a whole lot of faculty and students still have phobias for teaching or writing any kind of test or examination online. There is however little or no phobia when other types of activities were conducted on these systems and devises. Students and researchers however, have to make concerted efforts to concentrate on a single subject matter at one point in time, since these learning platforms and ICT gadgets continuously increase the temptations of wanting to process more than one information or piece of knowledge at a given time. These distractions were noted to influence the degree of passes or failures which were recorded at the end of the semester. Unsupervised online tests and examinations were noted to have encouraged cheating and exam misconducts. A general improvement on learning outcomes were however noted as a result of the new technologies introduced, when compared with the old methods of teaching, learning and evaluating students at Covenant University (CU). The study recommends Moodle 2.5 as one of the platforms which has efficient apps designed to aid students with assignments and tests of all kinds. Frequent exposures of students to online studies and assignments on the Moodle platform by faculty will help reduce the phobia experienced among students during learning, tests or assignments. Management needs to make more concerted efforts in bringing members of faculty up to date with innovations in ICT and MEAS.
readily available information and sophisticated means of communication. As a result, information and communication technologies are being deployed for application in various fields of endeavour some of which include virtual offices. A virtual office is essentially a simulated corporate environment that gives subscribers access to collaborative work related features, which act as a means of improving the work process carried out in an organisation. Several organisations opt for the software services rendered by virtual offices because of their cost-effectiveness and tendency to boost the collective productivity of these organisations. For reasons as such, the existence of virtual office software suites have become rampant, but the availability of its services are at a cost. This paper reports the design and implementation of an Educational Virtual Office using Free and Open-Source Software (FOSS) to relieve corporate organisations of the costly burdens of existing proprietary virtual office software. Tools used in achieving this feat are Drupal Web Content Management System (WCMS), readily available FOSS and a couple of other freeware, intelligently integrated to form a composite suite.

The developed educational virtual office suite was deployed in the Department of Electrical and Information Engineering of Covenant University. A usability (user satisfaction) test was conducted. Analysis of the test results showed that questions related to user satisfaction scored more strongly Agreed and "Agree" points than "Disagree" and "Strongly Disagree". This is a pointer to the fact that features such as the GUI of the web application and its navigation proved to have little or no challenges as at when the tests were carried out. Deployment of the developed educational virtual office suite has the significant advantage of low cost in comparison with proprietary virtual office suites with similar functionality. The fact that the suite was developed entirely using FOSS gives it all the attendant advantages that accrue from the employment of same from the system design bottom-up. Such advantages as easy access to source code, which engenders easy upgrade of the component parts, come naturally.

Conference Title: OVERCOMING BARRIERS TO NEW LEARNING TECHNOLOGIES IN A UNIVERSITY SETTING: THE CASE OF COVENANT UNIVERSITY
Conference Date: JUL 07-09, 2014
Conference Location: Barcelona, SPAIN
ISBN: 978-84-617-0557-3

Conference Title: DESIGN AND IMPLEMENTATION OF LEARNING-AIDED SOFTWARE FOR CHILDREN
Conference Date: JUL 07-09, 2014
Conference Location: Barcelona, SPAIN
ISBN: 978-84-617-0557-3

Conference Title: THE CONCURRENT AND PREDICTIVE VALIDITY OF COVENANT UNIVERSITY STUDENTS' EVALUATION OF LECTURERS' TEACHING COMPETENCE
Conference Date: JUL 07-09, 2014
Conference Location: Barcelona, SPAIN
ISBN: 978-84-617-0557-3

Conference Title: THE CONCURRENT AND PREDICTIVE VALIDITY OF COVENANT UNIVERSITY STUDENTS' EVALUATION OF LECTURERS' TEACHING COMPETENCE
Conference Date: JUL 07-09, 2014
Conference Location: Barcelona, SPAIN
ISBN: 978-84-617-0557-3

Conference Title: THE CONCURRENT AND PREDICTIVE VALIDITY OF COVENANT UNIVERSITY STUDENTS' EVALUATION OF LECTURERS' TEACHING COMPETENCE
Conference Date: JUL 07-09, 2014
Conference Location: Barcelona, SPAIN
ISBN: 978-84-617-0557-3
Record 24 of 29
Title: DISTRIBUTED DENIAL OF SERVICE (DDOS) NETWORK ATTACKS: IMPACT ON THE VIRTUAL LEARNING ENVIRONMENT
Author(s): Atayero, AA (Atayero, A. A.); Oshin, OL (Oshin, O. I.); Oshin, BO (Oshin, B. O.); Alatishe, AS (Alatishe, A. S.)
Edited by: Chova LG; Martinez AL; Torres IC
Abstract: Attacks on network services in the form of Denial of Service (DoS), Distributed DoS (DDoS), and Low-rate DoS (LDoS) are becoming more rampant and grievous in consequence. The Virtual Learning Environment (VLE) is susceptible to this class of attacks, and as such, a need for developing robust schemes, algorithms and techniques aimed at pre-empting such attacks and subsequently reducing the vulnerability of networks is of paramount importance. A variety of such techniques are currently available and more are at the developmental stage. We present in this paper an overview of the most popular schemes currently reported in the literature in the case of DDoS for proactive detection, prevention and evasion of these attacks. Mitigating techniques for dealing with each identified attack are also proffered, with a view to ensuring undisrupted learning experience in the VLE domain.
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Conference Title: 7th International Conference of Education, Research and Innovation (ICERI)
Conference Date: NOV 17-19, 2014
Conference Location: Seville, SPAIN
ISBN: 978-84-617-2484-0

Record 25 of 29
Title: 30 BILLION DEVICES AUTOMATICALLY INTERCONNECTED BY 2020: IMPACT ON THE VLE
Author(s): Ayurera, AA (Ayurera, A. A.); Alatishe, AS (Alatishe, A. S.); Oshin, OL (Oshin, O. I.)
Edited by: Chova LG; Martinez AL; Torres IC
Abstract: A fact established is that in the next six years, over 50 billion people, things and processes will be interconnected over the internet automatically, an average of six devices per person. The concept popularly known as the Internet of Things (IoT, also known as Internet of Everything 'IoE'), Cloud of Things 'CoE') is fast gaining grounds and is bent to change the way we interact with the Internet. The IoT is estimated as a $1,423.09 billion dollar market by the year 2020. The fraction of this market to be accessed by the Education sector is yet to be determined. If the current figures are extrapolated however, this fraction promises to be quite substantial. The possibility of the IoT is totally enabled by the introduction of the IPv6 scheme, which has 340,282,366,920,938,463,465,374,607,431,768,211,456 IP addresses. This conveniently allows for assigning about 100 dedicated IP addresses to each atom on planet Earth. This will naturally affect all paradigms of teaching and learning that leverage on IP networks for content delivery e.g. VLEs, eLearning and mLearning. Discussed in this paper are the current approaches adopted in VLEs and how the emerging IoT/IoE paradigms will impact them in the not too distant future. This study will help prepare the VLE stakeholders to be better equipped for the impending changes that cannot but occur.
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Conference Location: Seville, SPAIN
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Record 26 of 29
Title: OVERCOMING STUDENTS' LETHARGY IN EVALUATING LECTURERS' TEACHING COMPETENCE: COVENANT UNIVERSITY EXPERIENCE
Author(s): Odukoya, A (Odukoya, A.); Atayero, A (Atayero, A.); Williams, A (Williams, A.); Ofolabi, A (Ofolabi, A.); Akande, P (Akande, P.)
Edited by: Chova LG; Martinez AL; Torres IC
Abstract: The indispensable role of regular evaluation in experiencing continuous growth and development is an established fact. Considering the pivotal role of students in any education system, it is imperative that they are involved in Lecturers' evaluation exercise. Ironically, many students hardly take this exercise seriously. Consequently the core objective for this study was to find effective and empirical ways of helping students overcome the lethargy in evaluating Lecturers' competence, such that a more reliable and valid feedback can be obtained that would be useful in improving Lecturers' competence. Series of interviews were conducted to decipher the reason for this lethargy. A quick expert review of the previous Covenant University Lecturers' evaluation form, for content validity was made. Guided by current findings on the rudiments of effective teaching and learning, the draft of a new evaluation form, tagged Lecturer's Teaching Competence Evaluation Form - Student's Version [LTCEF-SV], was developed. Based on current findings on indicators of effective Lecturers, the LTCEF-SV was partitioned into 11 sections, namely: Subject Mastery; Human Relations; Communicative Skill; Pedagogical Skill; Class Control/Students' Management; Time Management/Absenteeism; Learning Materials; Testing and Evaluation Skill; Record Keeping & Organizational Skill; Originality, Creativity and Innovation; and ICT and Technology Usage. At the end of the instrument, the respondents were requested to summarize their perception of the Lecturer's competence and comment on any other issue not addressed in the form. Each section is comprised of two to eight prompts. Adopting a participatory research approach, a special review team comprising of students from 100, 200, 300 and 400 levels, female and male lecturers, and representatives of university management edited the draft copy of the LTCEF-SV for face validity. The outcome of this exercise was further subjected to critical review by a certified Psychometrician, thus establishing its content validity. The reviewed LTCEF-SV was then programmed and posted on the school website for test-run with representatives from all departments in the university. The feedback from this test run further served to improve the quality of the LTCEF-SV. Campus wide sensitization forum was also held before the entire student body responded to the LTCEF-SV. The final validation strategy applied was triangulation. This involved Managements' covert and overt observations of Lecturers in situ. This conglomeration of evaluation approaches furnished deeper insights into respective Lecturer's overall competence and served as more reliable information for feedback and remediation. Plans are also underway to give students appropriate feedback. The overall result showed that the primary objective for this project was achieved. From compilation of students' responses to the previous and current evaluation form, it was quite apparent that the laissez-faire attitude of Covenant University students towards evaluating Lecturers' competence has, to a large extent, been overcome.
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Record 27 of 29
Title: DEVELOPMENT-ORIENTED TESTING MODEL: CASE STUDY OF THE WEST AFRICAN EXAMINATIONS COUNCIL AND CAMBRIDGE SCHOOL CERTIFICATE EXAMINATIONS
Author(s): Odukoya, A (Odukoya, A.); Atayero, A (Atayero, A.); Adeemi, A.; Owolowore, E (Owolowore, Elizabeth)
Edited by: Chova LG; Martinez AL; Torres IC
Abstract: What is not inspected should not be expected. This proven statement succinctly captures the essence and significance of examinations. All over the world, Students and Teachers laboriously dance to the beats of examinations, especially examinations linked with certification. It is against this background that the Development Oriented Testing [DOT] model was conceived. The questions, however, are: do the examination bodies realize the enormity of the power they have? If they do, to what extent are they pragmatically using this power to catalyze productivity and development in their domain of control? This paper hypothesized that in many
African/developing nations, unlike in developed countries, the external examination/certification bodies barely assess true practical work and applied knowledge. The paper further postulates that this trend could be the bane of low productivity/development in these countries. The case study and ex post facto research designs were adopted in this study. To test these hypotheses, comparative analysis of past West African Examination Council [WAEC]-West African Secondary School Certificate Examination [WASSCE] and Cambridge International General Certificate of Secondary Examination [IGCSE] was conducted. The goal of the content analysis of past questions was to identify questions that tend to mobilize secondary school Teachers/Students to apply knowledge gained in the course of study to evolve useful products and services. The outcome of the content analysis revealed that there are remarkable differences in the number of higher educational objectives examined in Cambridge and WAEC O-level examinations. Cambridge examinations furnished more application questions than WAEC examinations. A quick survey of Teachers and Students on this issue further corroborated the postulations. The submission of this research, based on the inference made from this finding, is that this negative trend must be reversed [particularly at the secondary and tertiary levels] for African and related developing nations to experience pragmatic indigenous productivity/development. It is therefore recommended that the Development Oriented Testing [DOT] Model should be adopted to redress this situation.

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Record 28 of 29
Title: ... and a student's view
Author(s): Atayero, S (Atayero, Sarah)
Source: PSYCHOLOGIST Volume: 26 Issue: 1 Pages: 14-14 Published: JAN 2013
Accession Number: WOS:000313133900021
ISSN: 0952-8229

Record 29 of 29
Title: IMPLEMENTATION OF 'ASR4CRM': AN AUTOMATED SPEECH-ENABLED CUSTOMER CARE SERVICE SYSTEM
Author(s): Atayero, AA (Atayero, Aderemi A.); Ayo, CK (Ayo, Charles K.); Nicholas, IO (Nicholas, Ikhu-Omoregbe); Ambrose, A (Ambrose, Azeta)
Book Group Author(s): IEEE
Source: EUROCON 2009: INTERNATIONAL IEEE CONFERENCE DEVOTED TO THE 150 ANNIVERSARY OF ALEXANDER S. POPOV, VOLS 1- 4, PROCEEDINGS Pages: 1712-1715 DOI: 10.1109/EURCON.2009.5167874 Published: 2009
Abstract: The main disadvantage of human presence in the Call centers of GSM service providers is poor response time. The preference of IVR services by Nigerian GSM subscribers can be attributed solely to this fact. A system has been developed on the VoiceXML platform to serve as a panacea for this problem. The developed system called 'ASR4CRM' obviates human-to-human interaction in the complaint lodging and solution provision process, by replacing it with human-to-system interactivity. The system constitutes a 3-tier architecture. The telephone system constitutes the first tier; the VoiceXML gateway and the web server constitute the middleware, while the database constitutes the third tier. The system was tested with the top twenty-four FAQs from a leading Nigerian GSM carrier (MTN) and successfully deployed on Voxeo voice server. The system has succeeded in removing the human intermediaries in totality for system-activated responses with the attendant benefit of improved customer relationship management (CRM).
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